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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,919	08/20/2001	David W. Cannell	05725.0639-00	4335

22852 7590 08/14/2007

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ART UNIT	PAPER NUMBER
1616	

MAIL DATE	DELIVERY MODE
08/14/2007	PAPER

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BEFORE THE BOARD OF PATENT APPEALS

AND INTERFERENCES

Application Number: 09/931,919

Filing Date: August 20, 2001

Appellant(s): CANNELL ET AL.

Courtney B. Meeker

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 7/31/2006 appealing from the Office action mailed on 11/16/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The Examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct. Claims 1 to 9, 12 to 30 and 33 to 41 are pending.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is incorrect. Rejection over SORENSEN is withdrawn.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

PATROW	US Patent 4,659,566	April 21, 1987

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103 – Rejection

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9, 12-30, and 33-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over PETROW (US Patent 4,659,566).

PETROW teaches methods of permanently waving keratinous fibers, particularly hair, and compositions of matter useful in these methods. The reference teaches consumable reducing agents such as salt and ester of thioglycolic acid or a sulfite (abstract). Thioglycolic ester is thioglycolate. PETROW also teaches compositions and methods useful for altering the shape of hair by relaxing or straightening naturally or artificially waved keratinous fibers, particularly hair. PETROW teaches that the reduction stage, the first stage of the method, the disulfide linkages (S--S) of the keratin fiber are opened with the aid of reducing agents, including thioglycolates, sulfites, and bisulfites, etc. See the entire document especially lines 45-67 in col. 1, lines 1-29 in col. 2, examples, and claims.

The reference further teaches that hair is processed for 23 minutes under the salon hair dryer at the "Normal setting" (lines 14 and 15 in column 19). The treated hair exhibited a cosmetically acceptable wave with small, springy curls and "according to recipient and beautician, the hair had a healthy, undamaged appearance (lines 19-22, column 19). See lines 20-25 in column 3. The reference teaches using elevated temperatures. It also teaches heat-activated formulations (lines 46-50, column 10)

Instant claims differ from the reference in claiming more specific steps.

One skilled in the art at the time of invention would have been motivated to prepare a method of relaxing keratinous fibers of the hair using thioglycolates with the expectation of success because PETROW teaches a compositions and methods useful for altering the shape of hair by relaxing or straightening naturally or artificially waved

keratinous fibers, particularly hair. PETROW teaches that the reduction stage, the first stage of the method, the disulfide linkages (S--S) of the keratin fiber are opened with the aid of reducing agents, including thioglycolates, sulfites, and bisulfites. See claim 10 of the reference where hair is washed and dried.

No criticality of invention was noted.

In absence of any criticality and/or unexpected results presently claimed invention is considered *prima facie* obvious over the prior art.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill might reasonably infer from the teachings. *In re opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA 1976). A reference is not limited to working examples. *In re Fracalossi* 215 USPQ 569 (CCPA 1982).

Accordingly, the burden of proof is upon applicants to show that instantly claimed subject matter is different and unobvious over those taught by prior art. See *In re Brown*, 173 USPQ 685, 688; *In re Best*, 195 USPQ 430 and *In re Marosi*, 218 USPQ 289, 293.

In the light of the forgoing discussion, the Examiner's ultimate legal conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a).

(10) Response to Argument

1. Claim Rejections - 35 USC § 103 Second Rejection—PETROW et al. (US Patent 4,659,566).

- Examiner respectfully disagrees with Appellant's arguments for the following reasons:

- Appellants argue that PETROW repeatedly teaches, " disadvantages of using thioglycolates" (lst paragraph in section 2 on page 14 in response and refer to lines 8-10 in column 2). Examiner disagrees because this citation is from "Background of the Invention" and not PETROW's invention.

- For appellants convenience the citation in PETROW is as follows: "Conventional techniques, however, have suffered from a number of disadvantages. In particular, thiol containing compositions suffer from a persistent disagreeable sulfur odor" (lines 8-10. column 2). It appears that Appellant directed to incorrect statement.

- Next again Appellant statement appears to be incorrect as they argue that "PETROW teaches that they are caustic, result in overprocessing, and have a disagreeable odor", referring to lines 27-42 in column 3. Actually in lines 20-26 in the same column it teaches, "The combinations of the present invention are useful in improving the kinetics of the reduction stage in permanent waving and

hair straightening systems. When used in systems containing sulfites or bisulfites, the improvement is such that these odorless systems can produce professional quality permanent waves, which was not possible heretofore".

- Appellant argue that Step (v) i.e. heating is not taught by the reference. Examiner disagrees because about "heating" the reference teaches, that "ambient or room temperature was about 75.degree. F. When experiments were performed at room temperature, the hair samples were not enclosed. When experiments were performed at higher temperatures, the hair samples were enclosed in a plastic bag which was then warmed to the desired temperature using a salon-type hair dryer". Lines 65-68, column 12 and lines 1-3 in column 13. See lines 24-30, where use of elevated temperature is taught.

- The reference further teaches, "In practice, the glycerol monothioglycolate composition of this embodiment may be advantageously be applied either as a "cold wave" or as a heat-activated formulation. Heretofore, this material was useful primarily only when heat activated" (lines 46-50, column 10). Note, that claim 1 is not limited to monoethanolammmonium glycolate.

- Furthermore, the reference also teaches that "the monoethanolammonium thioglycolate composition of this embodiment is particularly useful when applied

as a "cold wave", i.e., at ambient or room temperature. When thus used, the composition can be used to achieve a permanent wave that meets professional standards and the objectionable, irritating fumes of ammonia are eliminated. Heretofore, monoethanolammonium thioglycolate compositions have been largely restricted to home perms", (lines 24-32, column 10).

- The reference teaches that hair is processed for 23 minutes under the salon hair dryer at the "Normal setting". (lines 14 and 15 in column 19). The treated hair exhibited a cosmetically acceptable wave with small, springy curls and according to recipient and beautician, the hair had a healthy, undamaged appearance" (lines 19-22, column 19).

- PETROW teaches a compositions and methods useful for altering the shape of hair by relaxing or straightening naturally or artificially waved keratinous fibers, particularly hair. PETROW teaches that the reduction stage, the first stage of the method, the disulfide linkages (S--S) of the keratin fiber are opened with the aid of reducing agents, which includes thioglycolates, sulfites, and bisulfites.

- The reference teaches the use of hydroxide. Examples in the disclosure of the present invention [053] exemplify the effect of the pH of the thioglycolate solution. The relaxation is known by using thioglycolate and a hydroxide, which includes

sodium hydroxide. The data presented in the examples would have been obvious to one skilled in the art.

- The reference teaches monoethanolammonium thioglycolate (as in claim 12 of the present invention).

- Further claims are not drawn to specific concentrations and pH as has been exemplified in the disclosure. The examples of the disclosure and claimed invention are considered obvious in view of the teachings of the prior art.

- Note, that shampoos contain potassium hydroxide and sodium hydroxide. (See MANDY et al. US Patent 4,075,353). These generate hydroxides. Therefore, the step (iii) in claim 1 of the present invention is shampooing the hair.

- Present invention does not teach the use of Iodide. The reference teaches "the use of iodine/iodide for treating hair for other purposes has, however, been previously described. In particular, Kritchensky (U.S. Pat. No. 2,153,762 issued Apr. 11, 1939) described use of a mixture of iodine, potassium iodide and sodium chloride as a first step prior to a lustering operation for improving the luster and decreasing the tendency of wool or hair to curl or spot when exposed to

moisture. Kritchensky stated that absorption of the iodine in the mixture was necessary for reaction with unsaturated bonds in the hair to make the hair coarse and non-curling. US. Pat. No. 3,824,304, issued to Villanueva on July 16, 1974, describes use of a tincture of iodine, i.e., a mixture of iodine and sodium iodide in an alcoholic solvent, to condition hair, (lines 30-50, column 2).

- The transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., >*Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1368, 66 USPQ2d 1631, 1634 (Fed. Cir. 2003) ("The transition 'comprising' in a method claim indicates that the claim is open-ended and allows for additional steps.");< *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) ("Comprising" is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. App. 1948) ("comprising" leaves "the claim open for the inclusion of unspecified ingredients even in major amounts").

- In claim 1 “comprising” allows other ingredients may be added.

- See KSR Supreme Court of United States Decision (Decided April 30, 2007, KSR INTERNATIONAL CO. v. TELEFLEX INC. et al. No. 04-1350) where it states that "However, The issue is not whether a person skilled in the art had the motivation to combine the electronic control with an adjustable pedal assembly, but whether a person skilled in the art had the motivation to attach the electronic control to the support bracket of pedal assembly".

- In the present case the steps as claimed would have been obvious to one skilled in the art at the time the invention was made. Since no criticality and/or unexpected results are disclosed presently claimed subject matter would have been obvious to one skilled in the art at the time of invention was made. Applicant has provided no data or evidence for distinguishing their invention with the prior art. Due to the teachings of the prior art cited above presently claimed invention is considered prima facie obvious to one skilled in the art at the time invention was made. Applicant must provide additional evidence to establish why their invention should be considered non-obvious, in absence of additional evidence to contrary, applicant's evidence must be deemed insufficient.

In the light of the forgoing discussion, the Examiner's ultimate legal conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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(Primary Examiner, Art Unit 1616)

Conferees:

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Alton Pryor, Ph. D.

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For the above reasons, it is believed that the rejections should be sustained.

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